CLAIMS

1. A method for the mechanical decontamination of preferably radioactively contaminated surfaces of mineral materials, in particular concrete surfaces and masonry, wherein the surface to be cleaned is hammered by way of an apparatus with several pneumatically actuated striking tools arranged in a housing, wherein the actuation air is exited to the surroundings and the space in which the striking tools operate is sealed from the surroundings in an air-permeable manner and from this space removed particles are suctioned off, wherein the volume of the air which is suctioned off is larger than the volume of the air which is used for actuation.

2. A method according to claim 1, wherein the actuation air before exiting to the surroundings is led into an expansion space.

3. A method according to claim 1, wherein the striking tools are equipped with chisel-like hammer bolts and are operated such that the majority of particles are struck off with the size order of 0.2 mm to 2.0 mm.

4. A device for the mechanical decontamination of contaminated surfaces of mineral materials, in particular of radioactively contaminated concrete surfaces and masonry, wherein the device comprises several pneumatically actuated striking tools which are arranged in a housing with several chambers arranged over one another such that each striking tool is in active connection with each chamber.

5. A device according to claim 4, wherein at least one pressurized air feed chamber, a pressurized air expansion chamber, a suction chamber and a collecting chamber are present.

6. A device according to claim 5, wherein the suction chamber and the collecting chamber form a common chamber.

7. A device according to claim 4 or 5, wherein the pressurized air feed chamber in the device is arranged at the top and the collecting chamber at the bottom.

8. A device according to claim 4, wherein the pressurized air expansion chamber is arranged between the suction chamber lying directly thereabove and the collecting chamber lying directly therebelow.

9. A device according to claim 6, wherein the pressurized air expansion chamber lies between the pressurized air feed chamber lying directly thereabove and the common collecting and suction chamber lying directly therebelow.

10. A device according to claim 8, wherein the expansion chamber is passed through by several lead-throughs which form communicating connections between the collecting chamber and the suction chamber.

11. A device according to claim 10, wherein the lead-throughs peripherally pass through the expansion chamber.

12. A device according to claim 7 or 8, wherein the collecting chamber is sealed with respect to the surroundings in an air-permeable manner.

13. A device according to claim 12, wherein the air-permeable sealing is effected by way of a circumferential skirt.

14. A device according to claim 12, wherein the air-permeable sealing is effected by way of a circumferential brush seal.

15. A device according to claim 7, wherein the pressurized air feed chamber projects beyond the chamber located therebelow and is held by an overlapping clip which serves as a mounting for a robot arm or handling apparatus connectable thereto.

16. A device according to claim 7, wherein the striking tools are releasably connectable to the pressurized air chamber and sealingly pass through all present chambers.

17. A device according to claim 16, wherein the releasable striking tools are held by way of screw connections passing through the housing on the outside.

18. A device according to claim 4, wherein the striking tools are equipped with exchangeable, chisel-like hammer bolts.